WALKER
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April 12, 2011

Mr. Wayne D. Houle
Director of Public Works
City of Edina
4801 West 50th Street
Edina, Minnesota 55424-1394

Re: City of Edina, Minnesota
Shared Parking Model Up-Date
Walker Project No. 21-3492.10

Dear Mr. Houle:

Pursuant to your request, Walker Parking Consultants (Walker) is pleased to present an updated Shared Parking Model report for 2011. Walker originally developed a shared parking model that was used for this report to estimate demand under future conditions. The shared parking model is based upon updated land use data provided by the City and was used to calculate the unadjusted and shared parking demand under existing and future conditions. In addition, the enclosed Excel spreadsheet model can be utilized to assess the shared parking demand under future scenarios, assuming new developments are constructed that impact the City parking system.

The primary objective of this update is to ascertain the approximate number of spaces required to meet the peak parking demand conditions when they occur in the City of Edina. To best assess the current peak parking demand we updated the previously developed simple "*Shared Parking*" demand analysis model.

SHARED PARKING ANALYSIS

Shared parking is defined as the use of a parking space to serve two or more individual land uses without conflict or encroachment[1]. The ability to share parking spaces is the result of two conditions: variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and relationships among the land uses that result in visiting multiple land uses on the same vehicle trip. Sharing parking spaces typically allows 20-40% more users compared with assigning each space to an individual motorist, since some potential users are usually away at any particular time. For example, 100 employees can typically share 60-80 parking spaces, since typically some employees are on leave, away on business, or using an alternative mode of commuting. Even greater reductions are possible with mixed land uses, since different activities have different peak demand times. For example, a restaurant can share parking with an office complex, since restaurant parking demand peaks in the evening while office parking demand peaks during the mid-day hours.

[1] Smith, Mary S. *Shared Parking*, Second Edition. Washington, D.C.: ULI – the Urban Land Institute and the International Council of Shopping Centers, 2005.

The tables and figures shown in the Appendix are itemized and discussed in detail below:

- Table 1: City of Edina, MN - Land Use Data, contains information that was provided by the City and used to develop the latest shared parking model. All tables included herein were developed utilizing the information contained in Table 1 and changes made to this table are reflected automatically in each of the tables that comprise the report.

- Figure 1: Study Area – Depicts the approximate study area used to develop the shared parking model. All of the parking structures and lots owned and operated by the City as well as any private parking lots utilized within the study area to meet the parking demand are identified. The map also shows the locations of the various land uses and includes locator numbers that can be cross-referenced with the locator numbers shown in Table 1.

- Table 2: City of Edina, MN - Shared Parking Model – Depicts the weekday and weekend unadjusted and shared parking demand generated by the various land uses served by the City parking system.

  The weekday and weekend models are based upon gross leasable office, retail, convenience retail, bank, grocery and restaurant space as well as the number of residential units and the number of seats within the local multiplex theatre.

  The model assumes driving ratios that range from 88% for employees to 100% for customers and visitors. The 88% driving ratio for employees assumes that 12% of the employees utilize other forms of transportation[2] (i.e. bus, rail, taxicab, motorcycle, bicycle, walk or work from home, as shown in the chart on the right). The model also assumes non-captive ratios that range from 50% for fast food customers to 100% for other land uses. Non-captive ratios identify the percentage of customers or employees frequenting the various land uses that are not already present on the site. For example, if 60% of the customers frequenting a fast food location were already on-site for work or to shop, the non-captive ratio for the fast food location would be 40%.

Means of Transportation[2] Minneapolis - St. Paul, MN Urban Area	
Car - Drove Alone	77.7%
Car - Carpool	9.8%
Bus	5.3%
Taxi	0.1%
Motorcycle	0.1%
Bicycle	0.5%
Walk	2.6%
Work at Home	3.5%
Other	0.4%
Total	100.0%

  Utilizing the land use information provided by the City, the weekday model depicts that a peak unadjusted demand of 2,222 vehicles will occur during the month of December at 1:00 p.m. When the peak weekday demand is adjusted to show the effects of shared parking, the weekday shared parking demand is reduced by 28% to 1,594 vehicles.

  The weekend model depicts that a peak unadjusted demand of 2,163 vehicles will occur during the month of December at 7:00 p.m. When the peak weekend demand is

[2] http://factfinder.census.gov/servlet/QTTable QT-P23. Journey to Work: 2000, Minneapolis – St. Paul Area

adjusted to show the effects of shared parking, the weekend shared parking demand is reduced by 27% to 1,576 vehicles.

Parking peak demand has increased approximately 19% from our previous demand model prepared in the summer of 2008. Parking capacity increase of 5% or 64 stalls is included in the up-dated study as a result of more accurate stall counting within study area.

- Table 3: City of Edina, MN - Supply Model – The table depicts the existing supply of parking spaces that are available for the various land uses contained in the model. The spaces are itemized by owner, type (structure or lot) and number of spaces by location.

  The total number of available spaces including both City and private parking facilities is 1,347 spaces. In order to show the most accurate model we applied an effective supply adjustment of - 7% to the existing space count; reducing the total available spaces to an effective supply of 1,253 spaces. The effective parking supply accounts for spaces within the system that are either lost to mis-parked vehicles, snow cover or other maintenance projects that may occur from time to time that reduce the number of useable spaces within the parking system.

  The results obtained from the shared parking model show that during the peak weekday demand period at 1:00 p.m. in December a deficit of 969 ± spaces will occur in the City system (unadjusted demand of 2,222 compared to the effective supply of 1,253 spaces). When the demand is adjusted to show the effect of shared parking a deficit of 342 ± spaces will exist (shared demand of 1,594 compared to the effective supply of 1,253 spaces).

  If the total parking supply is unaffected by snow cover, mis-parked vehicles or maintence projects, the deficit with shared parking would be reduced to approximately 247 ± spaces during peak periods (shared demand of 1,594 compared to the existing capacity of 1,347).

- Table 4: Shared Parking Demand by Time of Day – Weekdays - Peak Month (December) – The table depicts demand on the peak weekday day in December by hour and by land use beginning at 6:00 a.m. through 12:00 midnight. This table also shows how the shared parking demand is calculated by land use and confirms how the shared parking demand represents a more accurate calculation than the unadjusted demand when evaluating the number of spaces required during peak demand periods.

- Table 5: Shared Parking Demand by Time of Day – Weekends - Peak Month (December) - The table depicts the demand on the peak weekend day in December by hour and by land use showing the percentage of the daily demand that will be generated by hour beginning at 6:00 a.m. through 12:00 midnight.

- Figure 2: Shared Parking by Time of Day - Weekdays - Peak Month (December) – Figure 2 is a graphic illustration of the peak weekday demand in December compared to the total capacity of the City system of 1,347 spaces.

- Figure 3: Shared Parking by Time of Day - Weekends - Peak Month (December) - Figure 3 is a graphic illustration of the peak weekend day demand in December compared to the total capacity of the City system of 1,347 spaces.

CONCLUSION

The shared parking analysis shows that under current conditions the total supply of parking spaces is inadequate to meet the peak demand at 1:00 p.m. in December (247 ± deficit compared to the total capacity (1,347 spaces); additionally, a 340 ± deficit is noted when compared to the effective supply (1,253 spaces). However, most days throughout the year, the City system contains capacity that meets the 95th percentile of weekday demand. In addition, the peak month shared weekend evening 95th percentile parking demand will exceed total capacity.

To address deficit conditions that may exist on peak days, we recommend that consideration be given to providing additional parking supply. Adding approximately 140 - 200 parking stalls would bring parking supply and peak demand ratios back to 2008 levels. Additionally, a parking management plan could be developed that would entail the use of off-study area parking for employees. Employee parking would occur out of the study area with employee shuttle service provided to and from the core study area to the employee parking area. Valet parking for study area guests during peak demands will also mimic employee shuttle demand reduction with valet parking storage outside of the study area.

In addition to remote employee parking and shuttling, the City is already exploring the implementation of facility counters that will show the number of spaces available in the structures during peak occupancy periods. Once implemented, the facility counters should assist in traffic management during peak demand.

While not completely eliminating the supply problem, our recommendations provide multiple strategies that will ensure that more premium spaces are available during peak periods and also alleviate customers navigating the structures looking for an open space, as occurs today.

We look forward to discussing the shared parking model and our proposed management strategies for the City of Edina parking system with you at your earliest convenience.

Respectfully submitted,
Walker Parking Consultants

Scott R. Froemming, P.E.
Project Manager

APPENDIX

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Table 1: City of Edina, MN - Land Use Data

City of Edina, MN - Land Use Data													
Location	Descriptor	Locator	Office (s.f.)	Retail (s.f.)	Convenience Retail (s.f.)	Bank (s.f.)	Grocery (s.f.)	Multiplex (seats)	Residential (units)	Restaurant - Casual (s.f.)	Restaurant - Family (s.f.)	Restaurant - Fast Food (s.f.)	Total (s.f.)
3948 W. 49½ Street	Post Office	1			2,450								2,450
3944 W. 49½ Street	Dry Cleaner	2			1,855								1,855
3930 W. 49½ Street	Realty	3	13,400										13,400
3918 W. 49½ Street	Office	4	3,707										3,707
4916 France Avenue	Drug Store	5		4,809									4,809
4924 France Avenue	Florist	6		2,316									2,316
4930 France Avenue	Clothing	7		3,274									3,274
4936 France Avenue	Spa	8			16,241								16,241
4948 France Avenue	Retail	9			4,986								4,986
3902 W. 50th Street	Off/Ret	10	4,747	8,867									13,614
3906 W. 50th Street		11		20,980						7,500	0	0	28,480
3922 W. 50th Street		12	10,362	2,500									12,862
3924 W. 50th Street		13		12,960									12,960
3930 W. 50th Street		14	29,760	29,767						0	0	0	59,527
4100 W. 50th Street	Bank	15	10,000			9,176							19,176
3939 W. 50th Street		16	7,000	10,497						6,000	3,000	3,500	29,997
3939 W. 50th Street	Liquor	17		5,143									5,143
3917 W. 50th Street		18	9,924	13,000									22,924
3911 W. 50th Street [1]	Multiplex	19						1,300					
5000 France Avenue [2]	Mixed	20		14,130					23	3,000	7,000		24,130
5000 France Avenue	Mixed	20										1,158	1,158
5030-34 France Avenue	Rest	21								13,168			13,168
5036 France Avenue		22	0							6,835			6,835
5050 France Avenue	Bank	23	6,600			6,000							12,600
3945 W. 50th Street	Grocery	24					12,226					2,000	14,226
Insert New Location													0
Insert New Location													0
Insert New Location													0
Insert New Location													0
Insert New Location													0
Insert New Location													0
Insert New Location													0
Insert New Location													0
Insert New Location													0
TOTALS:			95,500	128,243	25,532	15,176	12,226	1,300	23	36,503	10,000	6,658	329,838

[1] Demand based upon the number of seats, not the s.f.

[2] Residential demand acommodated in a 46 space private garage; demand based on the number of units, not s.f., retail demand based upon s.f.

Source: Walker Parking Consultants

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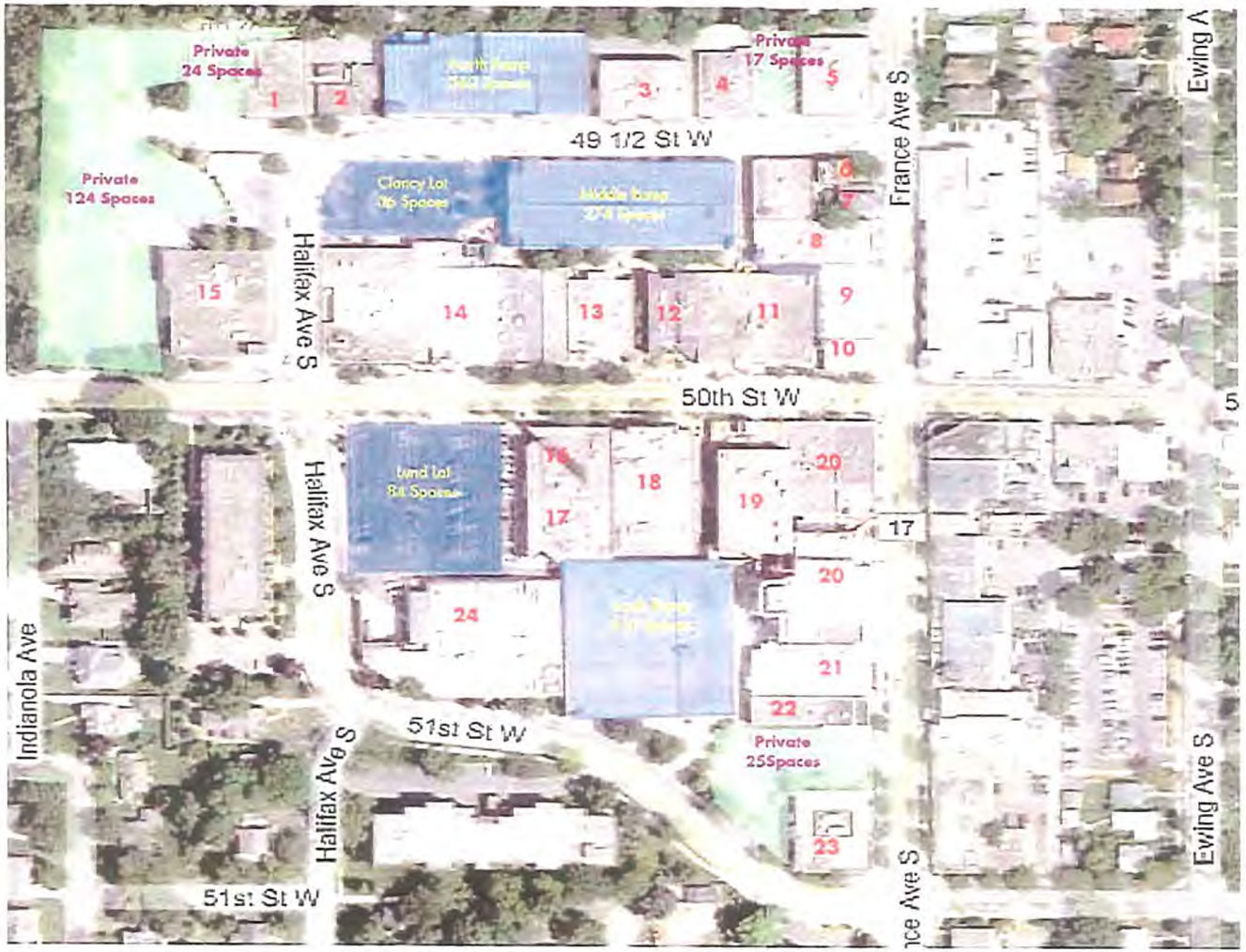
Figure 1: Study Area



Source: City of Edina, MN

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Table 2: City of Edina, MN - Shared Parking Model

Shared Parking Model - Edina, MN																	
			Weekdays								Weekends						
Land Use	Qty.	Unit	Base Ratio	Unit	Unadjusted Demand	Mo. Adjustment December	Peak Hour Adjustment 1:00PM	Non-Captive Daytime	Drive Ratio Daytime	Shared Parking Demand	Base Ratio	Unit	Unadjusted Demand	Mo. Adjustment December	Peak Hour Adjustment 7:00PM	Non-Captive Evening	Drive Ratio Evening	Shared Parking Demand
Office - Employees	95,500	s.f.	3.15	/k# GLA	301	100%	90%	100%	88%	238	0.32	/k# GLA	31	100%	0%	100%	88%	0
Visitors			0.25	/k# GLA	24	100%	45%	100%	100%	11	0.03	/k# GLA	3	100%	0%	100%	100%	0
Retail - Customers	128,243	s.f.	2.90	/k# GLA	372	100%	100%	97%	100%	361	3.20	/k# GLA	410	100%	75%	98%	100%	301
Employees			0.70	/k# GLA	90	100%	100%	100%	88%	79	0.80	/k# GLA	103	100%	80%	100%	88%	73
Convenience Retail - Customers	25,532	s.f.	4.90	/k# GLA	125	100%	95%	98%	100%	116	4.00	/k# GLA	102	100%	100%	99%	100%	101
Employees			1.20	/k# GLA	31	100%	100%	100%	88%	27	1.00	/k# GLA	26	100%	100%	100%	88%	23
Bank - Customers	15,176	s.f.	3.00	/k# GLA	46	100%	50%	98%	100%	23	3.00	/k# GLA	46	100%	0%	98%	100%	0
Employees			1.60	/k# GLA	24	100%	100%	100%	88%	21	1.60	/k# GLA	24	100%	0%	100%	88%	0
Grocery - Customers	12,226	s.f.	2.90	/k# GLA	35	95%	63%	98%	100%	21	3.20	/k# GLA	39	95%	58%	98%	100%	21
Employees			0.70	/k# GLA	9	100%	100%	100%	88%	8	0.80	/k# GLA	10	100%	40%	100%	88%	4
Cinema - Customers	1,300	seats	0.19	/seat	247	23%	45%	98%	100%	25	0.26	/seat	338	67%	80%	98%	100%	178
Employees			0.01		13	50%	60%	100%	88%	3	0.01		13	80%	100%	100%	88%	9
Residential	23	units	1.70	/unit	39	100%	70%	100%	100%	27	1.70	/unit	39	100%	97%	100%	100%	38
Residential - Visitors			0.15		3	100%	20%	100%	100%	1	0.15		3	100%	100%	100%	100%	3
Restaurant - Casual - Customers	36,503	s.f.	15.25	/k# GLA	557	100%	75%	97%	100%	405	17.00	/k# GLA	621	100%	95%	98%	100%	578
Employees			2.75	/k# GLA	100	100%	90%	100%	88%	79	3.00	/k# GLA	110	100%	100%	100%	88%	97
Restaurant - Family - Customers	10,000	s.f.	9.00	/k# GLA	90	100%	90%	98%	100%	79	12.75	/k# GLA	128	100%	70%	99%	100%	89
Employees			1.50	/k# GLA	15	100%	100%	100%	88%	13	2.25	/k# GLA	23	100%	95%	100%	88%	19
Restaurant - Fast Food - Customers	6,658	s.f.	12.75	/k# GLA	85	100%	100%	50%	100%	43	12.00	/k# GLA	80	100%	80%	50%	100%	32
Employees			2.25	/k# GLA	15	100%	100%	100%	88%	13	2.00	/k# GLA	13	100%	90%	100%	88%	10
Sub-Total - Employees					637					510			392					272
Sub-Total - Cust./Visitors					1,584					1,084			1,770					1,303
Peak Demand					2,222					1,594			2,163					1,576
% Reduction Unadjusted Demand vs. Shared Parking Demand										-28%								-27%

Source: Walker Parking Consultants

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Table 3: City of Edina, MN - Supply Model

Supply Model - Edina, MN			
Location	Owner	Type	Spaces
South Ramp	City	Structure	415
Middle Ramp	City	Structure	274
North Ramp	City	Structure	262
Lund Lot	City	Surface Lot	84
Clancy Lot	City	Surface Lot	36
5050 France Avenue [1]	Private	Surface Lot	25
4100 West 50th Street	Private	Surface Lot	124
3948 West 49 1/2 Street	Private	Surface Lot	24
5000 France Avenue	Private	Indoor	46
4916 France Avenue	Private	Surface Lot	17
France Avenue	City	On-Street	40
Input new location			
Input new location			
Input new location			
Input new location			
Sub - Total Spaces			1,347
less effective supply adjustment of: [2]		-7%	-94
Effective Supply			1,253
Unadjusted Demand (Peak)			2,222
Deficit vs. Unadjusted (Peak)			(969)
Shared Parking Demand (Peak)			1,594
Deficit vs. Shared Parking (Peak)			(342)

Source: City of Edina and Walker Parking Consultants

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Table 4: Shared Parking Demand by Time of Day – Weekdays - Peak Month (December)

Shared Parking Demand by Time of Day - Peak Month - Weekdays

Use - Weekday	Peak Hour - Unadjusted Demand	% Peak Month Demand	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Office - Employees	301	100%	3%	30%	75%	95%	100%	100%	90%	90%	100%	100%	90%	30%	25%	10%	7%	3%	1%	0%	0%
Visitors	24	100%	0%	1%	20%	60%	100%	45%	15%	45%	100%	45%	15%	10%	5%	2%	1%	0%	0%	0%	0%
Office - Employees			8	79	199	252	265	265	238	238	265	265	238	132	66	26	19	8	3	0	0
Visitors			0	0	5	14	24	11	4	11	24	11	4	7	1	0	0	0	0	0	0
Office Demand (Vehicles)			8	79	204	266	289	276	242	249	289	276	242	134	67	26	19	8	3	0	0
Retail - Customers	372	100%	1%	5%	15%	30%	55%	75%	90%	100%	100%	100%	95%	85%	80%	75%	65%	50%	30%	10%	0%
Employees	90	100%	10%	15%	40%	75%	85%	95%	100%	100%	100%	100%	100%	95%	95%	95%	90%	75%	40%	15%	0%
Retail - Customers			4	18	54	108	198	271	325	361	361	361	343	307	289	271	235	180	108	36	0
Employees			8	12	32	59	67	75	79	79	79	79	79	75	75	75	71	59	32	12	0
Retail Demand (Vehicles)			12	30	86	167	265	346	404	440	440	440	422	382	364	346	306	239	140	48	0
Convenience Retail - Customers	125	100%	5%	10%	25%	45%	60%	80%	90%	95%	100%	95%	100%	90%	70%	40%	30%	20%	15%	10%	10%
Employees	31	100%	20%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%	75%	50%	25%	25%	20%	20%	20%
Convenience Retail - Customers			6	12	31	55	81	98	110	116	123	116	123	110	86	49	37	25	18	12	12
Employees			5	10	14	20	27	27	27	27	27	27	27	27	20	14	10	7	5	5	5
Convenience Retail Demand (Vehicles)			11	22	45	75	108	125	137	142	150	142	150	137	106	63	47	32	23	17	17
Bank - Customers	46	100%	0%	0%	50%	90%	100%	50%	50%	50%	70%	50%	80%	100%	0%	0%	0%	0%	0%	0%	0%
Employees	24	100%	0%	0%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%
Bank - Customers			0	0	23	41	45	23	23	23	32	23	36	45	0	0	0	0	0	0	0
Employees			0	0	13	21	21	21	21	21	21	21	21	21	0	0	0	0	0	0	0
Bank Demand (Vehicles)			0	0	36	62	66	44	44	44	53	44	57	66	0	0	0	0	0	0	0
Grocery - Customers	35	95%	9%	17%	33%	71%	92%	100%	88%	63%	54%	42%	25%	56%	70%	54%	31%	18%	4%	0%	0%
Employees	9	100%	10%	20%	40%	80%	90%	100%	100%	100%	100%	100%	100%	90%	80%	50%	35%	20%	15%	10%	5%
Grocery - Customers			3	6	11	25	32	35	31	22	19	15	12	20	25	19	11	6	1	0	0
Employees			1	2	3	6	7	8	8	8	8	8	8	7	6	4	3	2	1	1	0
Grocery Demand (Vehicles)			4	8	14	29	37	41	37	29	26	22	19	25	29	22	13	8	2	1	0
Cinema - Customers	247	23%	0%	0%	0%	0%	0%	0%	20%	45%	55%	55%	55%	60%	60%	80%	100%	100%	80%	65%	40%
Employees	13	50%	0%	0%	0%	0%	0%	0%	50%	60%	60%	75%	75%	100%	100%	100%	100%	100%	100%	70%	50%
Cinema - Customers			0	0	0	0	0	0	11	25	31	31	31	33	33	45	56	56	45	36	22
Employees			0	0	0	0	0	0	3	3	3	4	4	6	6	6	6	6	6	4	3
Cinema Demand (Vehicles)			0	0	0	0	0	0	14	28	34	35	35	39	39	51	62	62	51	40	25
Residential	39	100%	100%	90%	85%	80%	75%	70%	65%	70%	70%	70%	70%	75%	85%	90%	95%	98%	99%	100%	100%
Residential - Visitors	3	100%	0%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	80%	50%
Residential			39	35	33	31	29	27	25	27	27	27	29	33	35	38	38	39	39	39	39
Residential - Visitors			0	0	1	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	2
Residential Demand (Vehicles)			39	35	34	32	30	28	26	28	28	28	30	34	37	41	41	42	42	42	41
Restaurant - Casual - Customers	557	100%	0%	0%	0%	0%	15%	40%	75%	75%	65%	40%	50%	75%	95%	100%	100%	100%	95%	75%	75%
Employees	100	100%	0%	20%	50%	75%	90%	90%	90%	90%	90%	75%	75%	100%	100%	100%	100%	100%	100%	85%	35%
Restaurant - Casual - Customers			0	0	0	0	81	216	405	405	351	216	270	405	513	540	540	540	513	405	135
Employees			0	18	44	66	79	79	79	79	79	66	66	88	88	88	88	88	88	75	31
Restaurant Casual Demand (Vehicles)			0	18	44	66	160	295	484	484	430	282	336	493	601	628	628	628	601	480	166
Restaurant - Family - Customers	90	100%	25%	50%	60%	75%	85%	90%	100%	90%	50%	45%	45%	75%	80%	80%	80%	80%	65%	50%	25%
Employees	15	100%	50%	75%	90%	90%	100%	100%	100%	100%	100%	75%	75%	95%	95%	95%	95%	80%	60%	45%	35%
Restaurant - Family - Customers			22	44	53	66	75	79	88	79	44	40	40	66	71	71	71	53	49	44	22
Employees			7	10	12	12	13	13	13	13	13	10	10	13	13	13	13	11	9	9	5
Restaurant Family Demand (Vehicles)			29	54	65	78	88	92	101	92	57	50	50	79	84	84	84	64	58	53	27
Restaurant - Fast Food - Customers	85	100%	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
Employees	15	100%	15%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Restaurant - Fast Food - Customers			2	4	9	13	23	36	42	42	38	26	23	26	36	34	21	13	9	4	2
Employees			2	3	4	5	10	13	13	13	13	9	8	9	12	12	8	5	4	3	3
Restaurant Fast Food Demand (Vehicles)			4	7	13	18	33	49	56	56	51	35	31	35	48	46	29	18	13	7	5
Sub Total - Employees & Residents			79	169	354	472	518	520	506	508	535	516	490	411	321	276	256	225	187	148	86
Sub Total - Customers & Visitors			27	84	187	321	558	760	1,039	1,085	1,023	839	882	1,013	1,064	1,031	970	876	746	540	195
Total Demand (Vehicles)			106	253	541	793	1,076	1,280	1,545	1,593	1,558	1,355	1,372	1,424	1,385	1,307	1,226	1,101	933	688	281

Source: Walker Parking Consultants

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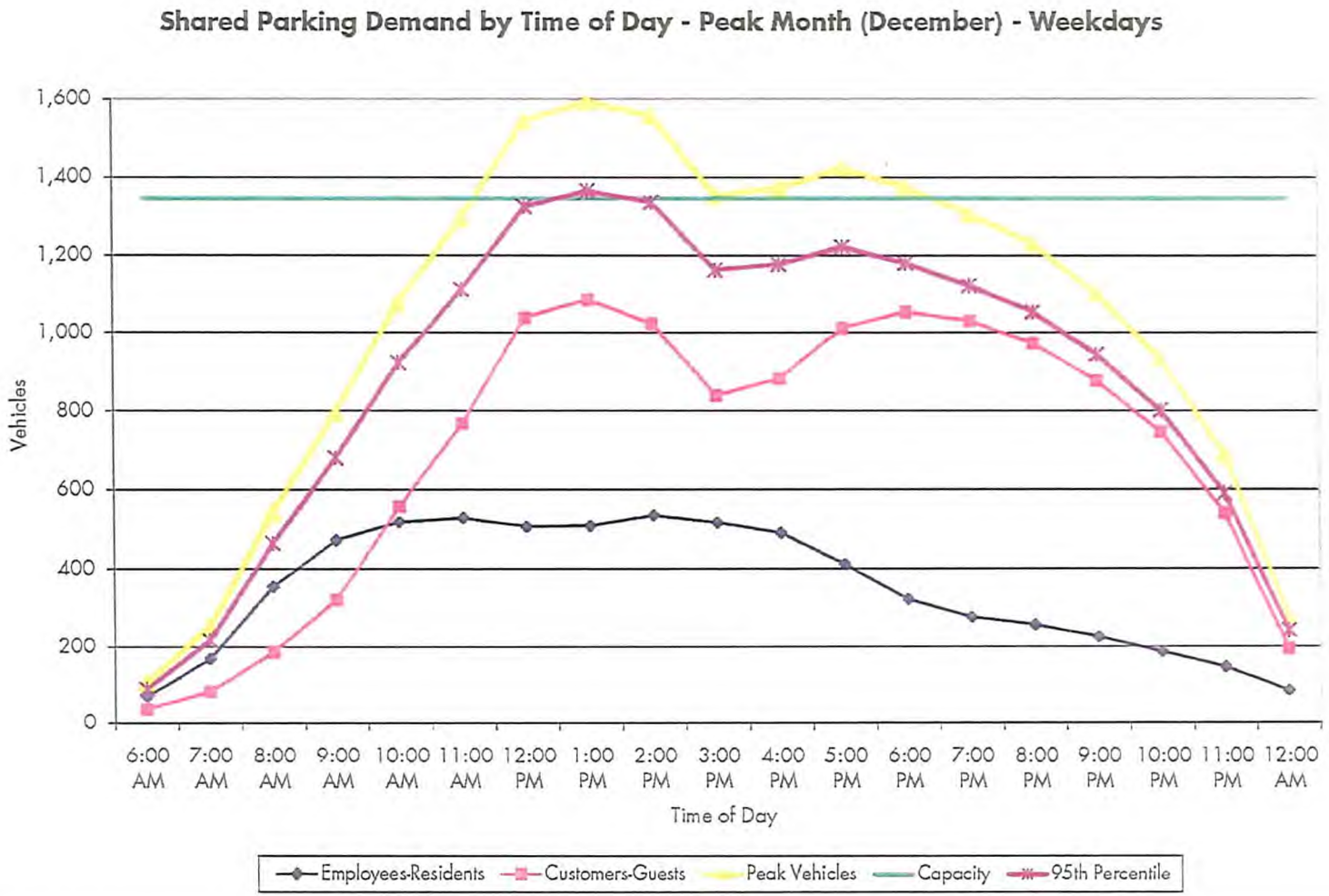
Figure 2: Shared Parking by Time of Day - Weekdays - Peak Month (December)



Source: Walker Parking Consultants

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Table 5: Shared Parking Demand by Time of Day – Weekends - Peak Month (December)

Shared Parking Demand by Time of Day - Peak Month - Weekends

Use - Weekday	Peak Hour - Unadjusted Demand / % of Peak PM	Peak Month - % Demand December	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Office - Employees	31	100%	0%	20%	60%	80%	90%	100%	90%	80%	60%	40%	20%	10%	5%	0%	0%	0%	0%	0%	0%
Visitors	3	100%	0%	20%	60%	80%	90%	100%	90%	80%	60%	40%	20%	10%	5%	0%	0%	0%	0%	0%	0%
Office - Employees			0	6	19	25	28	31	28	25	19	12	6	3	2	0	0	0	0	0	0
Visitors			0	1	2	2	3	3	3	2	2	1	1	0	0	0	0	0	0	0	0
Office Demand (Vehicles)			0	6	18	24	28	30	28	24	18	12	6	3	1	0	0	0	0	0	0
Retail - Customers	410	100%	1%	5%	10%	35%	60%	70%	85%	95%	100%	100%	95%	90%	80%	75%	65%	50%	35%	15%	0%
Employees	103	100%	10%	15%	40%	75%	85%	95%	100%	100%	100%	100%	100%	95%	85%	80%	75%	65%	45%	15%	0%
Retail - Customers			4	20	40	141	241	281	342	382	402	402	382	362	321	301	261	201	141	60	0
Employees			9	14	36	68	77	86	91	91	91	91	91	86	77	73	68	59	41	14	0
Retail Demand (Vehicles)			13	34	76	209	318	367	433	473	493	493	473	448	398	374	329	260	182	74	0
Convenience Retail - Customers	102	100%	5%	10%	25%	45%	66%	80%	60%	75%	65%	55%	60%	70%	90%	100%	100%	100%	95%	75%	55%
Employees	26	100%	10%	10%	30%	50%	90%	100%	100%	100%	100%	100%	100%	75%	100%	100%	100%	100%	100%	75%	50%
Convenience Retail - Customers			5	10	25	45	67	81	61	76	66	56	61	71	91	101	101	101	96	76	56
Employees			2	2	7	11	21	23	23	23	23	23	23	17	23	23	23	23	17	11	6
Convenience Retail Demand (Vehicles)			7	12	32	56	88	104	84	99	89	79	84	88	114	124	124	124	113	87	62
Bank - Customers	46	100%	0%	0%	25%	40%	75%	100%	90%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Employees	24	100%	0%	0%	90%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Bank - Customers			0	0	11	18	34	45	41	0	0	0	0	0	0	0	0	0	0	0	0
Employees			0	0	19	21	21	21	21	0	0	0	0	0	0	0	0	0	0	0	0
Bank Demand (Vehicles)			0	0	30	39	55	66	62	0	0	0	0	0	0	0	0	0	0	0	0
Grocery - Customers	39	95%	7%	23%	48%	78%	100%	94%	75%	51%	47%	35%	27%	48%	62%	50%	33%	22%	13%	4%	0%
Employees	10	100%	15%	35%	70%	85%	100%	100%	100%	100%	85%	75%	60%	55%	45%	40%	30%	20%	10%	10%	5%
Grocery - Customers			3	8	17	28	36	34	27	19	17	13	10	17	23	21	12	8	5	1	0
Employees			1	3	6	7	9	9	9	9	7	7	5	5	4	4	3	2	1	1	0
Grocery Demand (Vehicles)			4	11	23	35	45	43	36	28	24	20	15	22	27	25	15	10	6	2	0
Cinema - Customers	338	67%	0%	0%	0%	0%	0%	0%	20%	45%	55%	55%	55%	60%	60%	80%	100%	100%	100%	80%	60%
Employees	13	80%	0%	0%	0%	0%	0%	0%	50%	60%	60%	75%	75%	100%	100%	100%	100%	100%	100%	70%	50%
Cinema - Customers			0	0	0	0	0	0	44	100	122	122	122	133	133	178	222	222	222	178	111
Employees			0	0	0	0	0	0	5	5	5	7	7	9	9	9	9	9	9	6	4
Cinema Demand (Vehicles)			0	0	0	0	0	0	49	105	127	129	129	142	142	187	231	231	231	184	115
Residential	39	100%	100%	90%	85%	80%	75%	70%	65%	70%	70%	70%	75%	85%	90%	97%	98%	99%	100%	100%	100%
Residential - Visitors	3	100%	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
Residential			39	35	33	31	29	27	25	27	27	27	29	33	35	38	38	39	39	39	39
Residential - Visitors			0	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	2
Residential Demand (Vehicles)			39	36	34	32	30	28	26	28	28	28	30	34	37	41	41	42	42	42	41
Restaurant - Casual - Customers	621	100%	0%	0%	0%	0%	0%	15%	50%	55%	45%	45%	45%	60%	90%	95%	100%	90%	90%	90%	60%
Employees	110	100%	0%	20%	30%	60%	75%	75%	75%	75%	75%	75%	75%	100%	100%	100%	100%	100%	100%	85%	50%
Restaurant - Casual - Customers			0	0	0	0	0	91	304	335	274	274	274	365	548	578	609	548	548	548	304
Employees			0	19	29	58	73	73	73	73	73	73	73	97	97	97	97	97	97	82	48
Restaurant Casual Demand (Vehicles)			0	19	29	58	73	164	377	408	347	347	347	462	645	675	706	645	645	630	352
Restaurant - Family - Customers	128	100%	10%	25%	45%	70%	90%	90%	100%	85%	65%	40%	45%	60%	70%	70%	65%	30%	25%	15%	10%
Employees	22	100%	50%	75%	90%	90%	100%	100%	100%	100%	100%	75%	75%	95%	95%	95%	95%	80%	65%	65%	25%
Restaurant - Family - Customers			13	32	57	89	114	114	127	108	82	51	57	76	89	89	82	38	32	19	13
Employees			10	15	18	18	20	20	20	20	20	15	15	19	19	19	19	16	13	13	7
Restaurant Family Demand (Vehicles)			23	47	75	107	134	134	147	128	102	66	72	95	108	108	101	54	45	32	20
Restaurant - Fast Food - Customers	80	100%	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
Employees	13	100%	15%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Restaurant - Fast Food - Customers			2	4	8	12	22	34	40	40	36	24	22	24	34	32	20	12	8	4	2
Employees			2	2	3	5	9	11	11	11	11	8	7	8	10	10	7	5	3	2	2
Restaurant Fast Food Demand (Vehicles)			4	6	11	17	31	45	51	51	47	32	29	32	44	42	27	17	11	6	4
Sub Total - Employees & Residents			63	95	167	241	284	297	303	281	273	242	255	277	275	273	264	250	226	174	112
Sub Total - Customers & Visitors			27	76	161	336	518	684	990	1,065	1,002	964	930	1,049	1,241	1,303	1,310	1,155	1,055	889	680
Total Demand (Vehicles)			90	171	328	577	802	981	1,293	1,346	1,275	1,205	1,185	1,326	1,516	1,576	1,574	1,405	1,281	1,063	792

Source: Walker Parking Consultants

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Figure 3: Shared Parking by Time of Day - Weekends - Peak Month (December)

Source: Walker Parking Consultants